DOCUMENT RESUME

ED 298 439 CS 009 283

AUTHOR Samuels, Joann Nunez
TITLE An Annotated Bibliography of the Literature Focusing on Practices and Teaching Strategies in Reading Comprehension.
PUB DATE Jul 88
NOTE 44p.; Exit Project, Indiana University at South Bend.
PUB TYPE Reference Materials - Bibliographies (131)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Annotated Bibliographies; Elementary Education; *Reading Comprehension; *Reading Instruction; *Reading Research; *Reading Strategies; Schemata (Cognition); *Teaching Methods

ABSTRACT

This annotated bibliography lists research on current practices and selected new practices in the teaching of reading comprehension. The introduction states the problem, the purpose of the study, its organization and limitations, and includes a glossary of terms. The 29 annotations are in two broad categories: research dealing with classroom observations, and research on teaching strategies. The annotated entries on teaching strategies concentrate on three main areas: (1) schemata processes; (2) linguistic/reasoning skills; and (3) attentional/processing factors. The summary reviews this research briefly, drawing conclusions and recommendations. A 32-item bibliography concludes the work. (SR)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED298439

AN ANNOTATED BIBLIOGRAPHY OF THE LITERATURE FOCUSING ON PRACTICES AND TEACHING STRATEGIES IN READING COMPREHENSION

by

JOANN NUNEZ SAMUELS

Graduate Student

Study Directed

by

Charles R. Duvall, Ph.D.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

JoAnn Nunez Samuels

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Submitted in partial fulfillment of the requirements
for the course E591-Exit Project
Indiana University at South Bend
July, 1988

CS009283

BEST COPY AVAILABLE

TABLE OF CONTENTS

	Page
INTRODUCTION	1
Statement of the Problem	2
Purpose of the Study	2
Organization	3
Limitations	4
Glossary	6
ANNOTATIONS	
Practices in Reading Comprehension	10
Teaching Strategies	16
Schemata Processes	16
Linguistic/Reasoning Skills	19
Attentional/Processing Factors	23
SUMMARY, CONCLUSIONS, and RECOMMENDATIONS	
Summary	27
Conclusions	33
Recommendations	36
Bibliography	38

INTRODUCTION

With the increasing complexities of our society, the reading and understanding of texts takes on an ever increasing importance. In order to relate to these advances, pupils must be taught the skills of reading comprehension. It is thus necessary that our educators be given the tools to affect a positive change in the comprehension of today's pupils. Before these tools can be utilized they must first be developed. It is through research and the understanding of cause and effect relationships regarding reading comprehension that will ultimately bring forth the development of these tools. If we are to assume these tools or techniques do currently exist, then a method must be devised to make our current and future educators aware of them. Greater emphasis needs to be placed on instructing our educators on how to teach reading comprehension in order that it may be better implemented in the classroom. Educators must also become aware of the time that they spend on the teaching of reading comprehension skills as compared to other reading skills (Durkin 1978-79). Therefore, perhaps an investment of time must be matched with effective reading comprehension techniques in order to prepare our students to meet the demands of our society.

STATEMENT OF THE PROBLEM

With the nation's growing concern about reading, researchers have devoted much time to the study of reading comprehension (Jenkins and Pany, 1981). Among research findings it was discovered that only one percent of the time during reading instruction was devoted to teaching reading comprehension (Durkin 1978-79). This, along with other findings of research on teaching techniques, suggests that the teaching of reading comprehension skills needs improvement. (Kurth, 1985; Mason and Osborn, 1982; Mason, 1983; Taylor, et al., 1985; Durkin, 1984; Hansen and Pearson, 1983; Ferguson and Kennedy, 1985; Baumann, 1983)

PURPOSE OF THE STUDY

Reading comprehension is a vast, complex topic in which pupils' grasps of the concepts behind it not only effect their performance in reading, but in all content areas. Without a doubt reading comprehension is affected by innumerable factors such as psychological, physiological, and developmental processes; pupil experiences at home and in society; and instructional practices. Educators can create the most change by dealing with instructional procedures that enhance comprehension. Therefore, current practices in teaching comprehension as well as some new practices need to be examined so that those that are most

beneficial may be employed in classrooms. It is important to note that because of the volume of research on new strategies, only some of the more promising techniques have been reviewed.

ORGANIZATION OF THE STUDY

In order to have a clear understanding of the practices in the teaching of reading comprehension, research dealing with observations of teachers and pupils must be reviewed. Observations provide us with information about the time spent in instructional practices, teachers' practices in teaching comprehension, and the manner in which materials are used. It is for these reasons that the first part of the paper is devoted to observations in classrooms.

Researchers have responded to the current concerns about the teaching of reading comprehension by conducting vasts amounts of research to reveal strategies that may effectively enhance the teaching of reading comprehension. Since this field is so overwhelming, the research presented will concentrate on three main areas described by Jenkins and Pany (1981) as: schemata, linguistic/reasoning skills, and attentional/processing factors. Most studies were able to be placed into one of these catagories. However, since so many factors play a part in comprehension, every study may not have fit solely into one catagory. When that was the case, the study was placed in the catagory that best matched the main concepts of the study.

The catagory schemata deals with issues relating to cognitive factors that influence the reader, such as background knowledge or schemata. Research dealing with the effects of advanced organizers, title and paragraph heads, pictures, schema theory, and retellings will comprise this catagory.

In comparison, linguistic/reasoning skills place more emphasis on what the text brings to the reader rather than what the reader brings to the text. For this reason, the research comprising this catagory will include: organization strategies, specific subskill instruction, cloze procedure, story mapping, and fluency practice.

The third catagory, attentional/processing factors, deals with how the pupil attends to the text being read. Research that pertains to this catagory includes questioning strategies and self-monitoring techniques.

LIMITATIONS OF THE STUDY

Although the original plan was to devote a large portion of the paper to reviewing research on the topic of actual time spent teaching reading comprehension, the lack of research in this area made this impossible. Few studies in this area have been conducted. It appears that the research of Durkin (1978-79) has therefore become the foundation on which many of the researchers based their studies, e.g., Kurth, 1985; Mason and Osborn, 1983; Taylor, et al., 1985; and Gambrell, Pfeiffer, and Wilson, 1985. In

contrast, numerous research was found on strategies to improve comprehension. However, due to time limitations the number of strategies reviewed had to be limited.

GLOSSARY

basal reader - "a textbook, usually a part of a graded series, used for instruction in reading." (Good 1973, p. 472)

basal reading series - "a set of books issued by a publisher as texts for systematic instruction in reading; usually includes a reading-readiness book, a preprimer, a primer, and the first to sixth readers." (Good 1973, p. 475)

cloze procedure - "a procedure used to evaluate and improve reading comprehension; based on the gestalt concept of closure and involving a cloze text composed of reading selections from which words have been deleted; completion of the test requires that the testee fill the blanks left by the deletion." (Good 1973, p. 108)

comprehension - "the act of understanding the meaning of printed or spoken language as contrasted with the ability to perceive and pronounce words without reference to their meaning." (Good 1973, p. 123)

content reading - "reading of books that contain needed information, such as textbook or reference books on geography, history, or science; to be contrasted with the reading of books for recreation or fun only." (Good 1973, p. 473)

decoding - "the process of translating printed or written symbols into the spoken word." (Good 1973, p. 167)

fluency - "smoothness and rapidity in reading, uninterrupted by failures in recognition or other faults." (Good 1973, p. 246)

"independent reading level - a term used by Betts to describe a level at which a reader can read without aid from a teacher or other adult in word recognition and in the identification of meaning." (Good 1973, p. 474)

prediction strategy - "a person's use of knowledge about language and the context in which it occurs to anticipate what is coming in writing or speech." (Harris and Hodges as quoted in Ferguson and Kennedy 1985, p. 194)

schema theory - "schema theory suggests that comprehension of and memory for a text results from an interaction of the information in the text with the existing cognitive structures which the child brings to the reading (or listening) task." (Wilkinson and Bain 1984, p. 147)

statistical significance - "the property of having low probability of occurrence on the basis of chance alone, thereby likely occasioned by factors other than chance; not necessarily synonymous with practical significance." (Good 1973, p. 534)

story grammars - "Just as sentences are constructed according to a grammar, it is proposed that stories also have a structure which may be described by a set of grammatical rules. The rules for a story grammar attempt to define the elements common to most stories - the kinds of events, actions, and information that make up the story - and the permissible interrelationships among the elements." (Wilkinson and Bain 1984, p. 148)

story map - "Story maps organize a story visually so specific relationships of selected story elements are highlighted." (Reutzel 1985, p. 401)

story schemata - "In relation to stories, the pre-existing cognitive structures are referred to as story schemata, and these may be thought of as **frameworks of expectations** about typical stories. As children listen to or read a story, it is maintained that they search for particular elements or segments in the story and incorporate the information into a series of **frames** or **placeholders** which help them organise [sic], interpret, and remember the story content." (Wilkinson and Bain 1984, p. 147-148)

teachers' manual - "a guide containing teachers' aids, references, and related topics of interest in a given subject-matter field, prepared to aid instructors in that field; usually arranged for use with a specific text." (Good 1973, p. 349)

word recognition - "the process of perceiving words in reading and associating meaning with word symbols." (Good 1973, p. 474)

ANNOTATIONS

PRACTICES IN READING COMPREHENSION

Kurth, Ruth Justine. "Training Peer Teachers to Improve Comprehension". Paper presented at the Annual Meeting of the American Educational Research Association March 31-April 4, 1984. Chicago, IL. ED 256 733.

Kurth based this study on the research findings that suggested that teachers did not spend an adequate amount of time teaching reading comprehension. An attempt to train teachers to improve the teaching of comprehension, to improve the time spent on comprehension, and to get more pupils to read at their independent level was made by using peer coaches to help fellow teachers. The peer coaches observed second and third grade teachers at the end of September to determine their teaching practices prior to the treatment. It was found that the teachers spent 9 percent of the time during reading directly teaching comprehension. Furthermore, it was found that nearly twice as much time was spent teaching word recognition skills as compared to teaching comprehension. Pre-treatment observations also revealed that 35 percent of the pupils were reading on an independent level. Finally it was noted that 16 percent of the time spent in reading sessions was spent on "non-instructional or transitional activities" (p. 14). Through the use of peer observations and training, improvements were made in all areas.

Durkin, Dolores. "What Classroom Observations Reveal About Reading Comprehension Instruction." Reading Research Quarterly 14 (4) (1978-79): 481-533.

The main objective of the study was to determine whether reading comprehension was provided in elementary schools and if so, how much time was devoted to it. Reading and social studies lessons were observed in grades 3-6 in central Illinois. Both teacher and pupil behaviors were observed to determine the amount of time teachers spent on instructing and pupils spent on doing activities that would increase their comprehension. Results of the study indicated that relatively no time was spent on teaching comprehension skills or other skills for that matter. Durkin found that of the 4,469 minutes of observing reading "less than 1 percent (28 minutes) went to comprehension instruction" (p. 497). Rather than instructing, teachers spent more time assessing pupils' progress and giving assignments.

Quirk, Thomas J., et al. "Attending Behavior During Reading Instruction." The Reading Teacher 29 (April 1976): 640-646.

The aim of this study was to determine the amount of time that second, fourth, and sixth graders engaged in reading activities during reading class and the amount of time they spent in groups consisting of a teacher, another adult, peers, or only themselves. Pupils were observed on fixed-time intervals of fifteen seconds. According to the researchers, pupils spent the majority of their reading time paying attention to a group that contained the teacher. With respect to the content of instruction, pronunciation and word recognition occurred most frequently and accounted for 20 percent of the time and comprehension activities occurred 7 percent of the time. However, when the catagories of attending to the teacher and reading comprehension were combined, they counted for 5 percent of the time. When the researchers combined catagories of reading related activities (comprehension, pronunciation and word recognition, language structure, silent reading, spelling, listening instruction, and writing), they found that pupils spent 61 percent of their time in these activities. This led the researchers to conclude, "This is encouraging, as it indicates an efficient use of classroom time for the students in terms of reading-related activities" (p. 643).

Quirk, Thomas J., et al. "The Classroom Behavior of Teachers During Compensatory Reading Instruction." The Journal of Educational Research 68 (1975): 185-192.

The purpose of this study was to observe the actions of teachers during reading instruction so that future studies could be done to determine the effect of teaching practices on the achievement of pupils. The final sampling consisted of 135 second, fourth, and sixth grade classes. The teachers, who were observed 9 times for a period of 15 mintues, were observed on fixed-time intervals of 10 seconds. Their actions were then classified into one of two pre-determined catagories: (1) Mode of Instruction or (2) the Content of Instruction. The Mode of Instruction consisted of the following observation catagories: "(1) teacher talk, (2) other-adult talk, (3) student-talk, (4) machine, and (5) no talk" (p. 186). The content of Instruction consisted of the following catagories: "(1) comprehension, (2) pronunciation and word recognition, (3) language structure, (4) reading silently, (5) spelling, (6) listening instruction, (7) non-reading instruction, (8) management instruction, (9) positive feedback, (10) negative feedback, and (11) extraneous" (p. 187). Observations indicated that teachers spent 45 percent of instruction time talking. The greatest percentage of time occupied in the content of instruction area, 30 percent, was in the catagory of Management Instruction which covered classroom activities such as transitions between subjects and the teacher directing the students to the correct page of a text. In comparison, comprehension activities occupied 12 percent of reading time.

Mason, Jana, and Jean Osborn. "When Do Children Begin 'Reading to Learn'? A Survey of Classroom Reading Instruction Practices in Grades Two Through Five." Technical Report No. 261. Center for the Study of Reading. Illinois University, Urbana-Champaign (September 1982). ED 220 805.

This study was conducted to determine the validity of the notion that the primary emphasis in reading changes from decoding and fluency ("learning to read") in grades one through three to comprehension and higher level thinking skills ("reading to learn") from grades four and on (p. 2). Higher level thinking skills included "reading diverse texts and learning how to understand, interpret, and evaluate new concepts" (p. 2). In an effort to test this notion, teachers in grades two through five completed questionnaires about their views of comprehension. To test how their views were put into practice, third and fourth grade teachers were observed during reading lessons. Although teachers indicated that they believed that word recognition skills should be emphasized more in early primary grades and that instruction should emphasize text level comprehension after third grade, they did not indicate on the questionnaires that they adhered to this practice and observations also did not confirm this. For this study, text level comprehension skills included: main idea, inference, author's purpose, sequencing, cause and effect, study skills, and locating information skills. Observations revealed that although word recognition instruction did decrease after third grade, text level comprehension did not increase significantly. Instead, differences found between grade levels were due to differences in organization and materials. Teachers were also asked what reading skills were strongest in their pupils at the beginning of the semester. All teachers indicated that word recognition tasks were strongest and text level comprehension skills, with the exception of main idea, were weakest. Yet the teachers did not devote time to the weakest tasks and therefore "it is not surprising now that teachers report such low competence among their students on text level comprehension tasks" (p. 33).

Mason, Jana M. "An Examination of Reading Instruction in Third and Fourth Grades." The Reading Teacher 36 (9) (May 1983): 906-913.

In an attempt to analyze the structure and sequence of reading instruction in third and fourth grades, Mason uncovered not only that an organized sequence of instruction was lacking, but also that worksheets had taken over the teaching of comprehension and other skills. These results were based on Mason's study in which observed reading activities were recorded as being in one of the following coded catagories: "Where 1 denoted work recognition, 2 word meaning, 3 text introduction, 4 reading, and 5 text discussion. The 3,4,5 sequence was assumed to describe the core..." (p. 909). After analyzing the observed sequence of activities, it was found that the core sequence of introducing a text, reading it, and then discussing it was rarely observed-only 4 percent of the time. The interrupted flow of sequence was often the result of the over use of paper and pencil activities, such as worksheets. Mason's concluding advice was that teachers need to be selective when assigning worksheets and only assign them as a supplement to teacher-led discussions that focus on the text. "Hence, until worksheets are changed substantially or teachers use them differently, reading comprehension lessons are likely to be inadequate" (p. 913).

Durkin, Dolores. "Reading Comprehension Instruction in Five Basal Reader Series." Reading Research Quarterly 16 (4) (1981): 515-544.

Five basal series, kindergarten through sixth grade, were reviewed for this study. Each page of every teacher's manual was repeatedly reviewed to determine the extent and manner in which the following activities were conducted: teacher supervised application, independent practice, review of instruction, preparation for reading, and assessment. Results indicated that a great deal of material in the manuals were devoted to assessment and practice suggestions and very little time was spent on actual teaching. Interestingly, the amount of time devoted to the reading activities in the manuals is similar to the amount of time Durkin found that teachers spent on these skills. (Durkin 1978-79). As Durkin stated, "Again this reflects what seems to be the underlying assumption of the manuals: Children come to understand by doing, not be receiving, direct, explicit instruction that is complemented with application and practice" (p. 524-525). Durkin's conclusions reflect the need for changes in basal series. Beginning with the issue of the over reliance on practice sheets, Durkin warned that if no connection is made between the practice and application to reading, pupils may never see the connection and may be unable to apply learned skills to their independent reading. Another problem with the basals was the brevity of instruction activities. At times, manuals only suggested a one-sentence statement as instruction on a concept. All five basal programs also failed to explain how they came up with what skills were to be taught, how they were to be taught, and how they were to be practiced. Finally, Durkin again questioned the over use of assessment "when what is really needed is explicitly informative instruction" (p. 543).

Taylor, Barbara, et al. "A Comparison of Students' Ability to Read for Main Ideas in Social Studies Textbooks and to Complete Main Idea Worksheets." Reading World 24 (3) (March 1985): 10-15.

An attempt to see whether or not fifth graders could take the comprehension skill of main idea, that they had learned and practiced through worksheets, and transfer the skill to content materials, was the focal point for these two studies. Worksheets were used to test average and above average readers on the main idea of eight short, unrelated paragraphs. Later subjects were to read a three-page excerpt from a social studies book and write a main idea statement for each part of the excerpt. Then the subjects answered four short-answer main idea questions. Results of the tests indicated that fifth graders are much better at doing main idea worksheets than they are at generating main idea statements or answering main idea questions (p. 13). The researchers then conducted a second experiment similar to the first except that instead of giving short answers to the questions, the subjects were given multiple choice questions. Results again showed that subjects scored highest on the reading worksheets and lowest on generating their own main idea statements. The results led the researchers to conclude that "basal reader worksheet activities which are typically used to teach the skill of main idea in elementary classrooms are insufficient for teaching students to read for main ideas" (p. 14). They advised that direct instruction be implemented.

Durkin, Dolores. "Is There a Match Between What Elementary Teachers Do and What Basal Reader Manuals Recommend?" The Reading Teacher 37 (1984): 734-744.

Durkin's observations of how 16 teachers in grades one, three, and five focused on how teachers use basal teacher's manuals. Durkin conducted the study by observing teachers and writing down everything they did during their reading lessons. Next, she consulted a manual to determine what manual suggestions were followed, modified, or omitted. Later she discussed her observations with the teachers. Durkin's observations revealed that teachers rarely used manual suggestions for the prereading activities of introducing new vocabulary, developing background information, and asking prepreading questions. Teachers most often used the manuals for assessing comprehension through questioning. Not all of the questions were asked, but questions that were asked came straight from the manuals. Manuals were used for instruction, although the only instruction seen was in phonics. Much more time was spent on practice than on instruction and teachers were not observed using manuals when it came to making practice assignments. Manual suggestions on providing individual differences were also not observed. Durkin concluded the article by offering the following advice, "Giving more time to new vocabulary, background information, prereading questions, instruction on essential topics, and better but fewer assignments, and on the other hand spending less time on oral reading and comprehension questions, is one possible change that is not likely to promote any more problems than were seen in the classrooms. What the different allotment of time may promote, however, is better readers" (p. 744).

Durkin, Dolores. Reading Methodology Textbooks: Are They Helping Teacher Teach Comprehension?" Reading Education Report No. 59. Bolt, Beranek and Newman, Inc., Cambridge, Mass.; Center for the Study of Reading. Illinois University, Urbana. (1985). ED 262 391.

After observing the teaching of reading comprehension in classrooms and comprehension instruction suggestions in basal manuals, Durkin examined reading methodology textbooks to determine whether they could provide answers to why the lack of attention to comprehension was occurring. Eight frequently used reading methodology textbooks, with copyrights of 1983 and 1984, were analyzed for this study. Each page was thoroughly gone over by two researchers to determine the number of times that examples of reading comprehension instruction were given. When there was disagreement on whether something should be labeled as instruction or not, the text was given the benefit and the segment was labeled as comprehension instruction. When the suggestions for instruction were tallied, the results found that very few specific suggestions were given and those that were given were short and unspecific. The analysis also revealed that the textbooks offered substantial suggestions on assessment. Furthermore, many sections labeled as "instruction" were actually assessment procedures. Results of the study led Durkin to react on the key issues. Her first concern was that with the over reliance on the schema theory, the methods textbooks were not emphasizing enough specific, detailed teaching suggestions. Secondly, a distinction needed to be made on the difference between instruction and assessment. Lastly, Durkin's concern was for teachers who want to improve their comprehension instruction, but are not being offered a means for doing this.

TEACHING STRATEGIES
SCHEMATA PROCESSES

Hansen, Jane and P. David Pearson. "An Instructional Study: Improving the Inferential Comprehension of Good and Poor Fourth-Grade Readers." Journal of Educational Psychology 75 (6) (1983): 821-829.

Hansen and Pearson used 20 good fourth grade readers and 20 poor fourth grade readers in this 10 week study designed to test the effects of a strategy training procedure on comprehension. The pupils were randomly assigned to an experimental or a control group. All four groups were led by fourth grade teachers. All groups used 2 day sequences, planned by the experimenters, when introducing and discussing the stories. The prereading activities of the experimental group were based on the subjects relating their own experiences to the reading selections in order to "set the stage for interaction with the text during reading" (p. 823). They also were required to write answers to a few questions before the read the stories. The prereading activities of the control group were taken from the basal manuals and therefore "were often sparse" (p. 824). Postreading discussions were conducted with both groups using 10 questions to generate the discussion. For the experimental group, the questions were all inferential, requiring the subjects to use prior knowledge in combination with the text to answer them. For the control group, inferential and literal questions were used. After discussions all subjects completed worksheets containing literal and inferential questions. Subjects were later tested by asking them about two new stories that they had read. Results revealed that only the poor readers in the experimental group made significant gains due to the treatment.

Brimble, Ron. "An Interaction, Question-Response Strategy: Focus on the Sentence in Content Reading." Australian Journal of Reading 9 (2) (June 1986): 84-90.

Using current theories and on-going research, Brimble implemented a teaching strategy with seventh graders that focused on literal and inferential questioning as applied to social studies reading. The strategy focused on the questions being asked and how students fit the questions into their schema. Students were given passages to read and were directly taught how to answer questions related to the passages. A linguistics approach was used to help the subjects become aware of key questioning words and other clues in the questions. The subjects were then told to refer to the text to see whether or not the answer to the question was directly stated in the passage. When answers were not found in the text, the subjects learned that they would have to supply the answers themselves by relying on the content of the passage and their own background knowledge. Feedback also played a key role in the strategy. Teachers either gave written feedback, conducted group discussions, or supervised students in groups. Brimble concluded that this strategy can be used in conjunction with other strategies to enhance comprehension.

Marino, Jacqueline L., Sandra M. Gould, and Lester W. Haas. "The Effects of Writing as a Prereading Activity on Delayed Recall of Narrative Text." The Elementary School Journal 86 (2) (November 1985): 199-205.

Sixty fourth graders were subjects in this study done to see the effects of writing before reading comprehension and later recall of a text. The subjects were either put into a control group or an experimental group. The two groups were each divided into high, average, and low readers. Both groups were given a writing assignment before they read an abridged text. The control group was to write a non-text-related narrative description of any past personal event. The experimental group was given a scenario related to the topic of the text. They were then instructed to write a letter describing the boy in the scenario and his experiences. Both groups were given a framed-recall test. The test was a 550 word summary of a story with 25 key phrases or clauses left out, which the subjects were to fill in with appropriate phrases or clauses. Results of the test showed that the experimental group scored significantly better than the control group. The implication of the results was that certain writing tasks done before reading will improve comprehension. This implication goes along with the schema theory which says that the prior knowledge that a reader brings with him to reading will effect his comprehension. As the researchers pointed out, "Comprehension is dependent on the schema available to the reader, and writing is a schema-building process" (p. 200).

Ferguson, Dr. Anne M., and Melanie Kennedy. "P-R-E-V Teaching Predictions and Concepts Simultaneously." Reading Horizons 25 (3) (Spring 1985): 194-199.

This study was conducted was on P-R-E-V, a teaching strategy that emphasized the use of making predictions before reading and verifying or negating them after reading. The researchers stated that "prediction strategy not only alerts the teacher to the reader's existing prior knowledge of the text, but also makes the student become attentive to his own metacognitive insights" (p. 195). The letters in P-R-E-V stand for predict, silent read, eliminate false responses and verify predictions (p. 195-196). The experimental process began with pre-testing fourth graders on a social studies selection. On the following days the subjects made predictions, silently read the material, eliminated false predictions, verified true predictions, and finally used other resources to verify or discredit predictions that were unanswered in the text. Post-testing was done on the final day. Scores comparing pretests to posttests were encouraging as they showed an overall group increase and an individual increase of twelve of the seventeen subjects' scores. The few subjects who did not do well or did not increase their scores were thought to have been affected by a lack of time or other factors, rather than the teaching technique itself. The researchers promoted the P-R-E-V strategy as a way of improving comprehension when used with other teaching strategies and when used as a learning strategy for pupils.

Wilkinson, Ian, and John Bain. "Story Comprehension and Recall in Poor Readers: Everyone a Schemer?" Australian Journal of Reading 7 (3) (August 1984): 147-157.

Wilkinson and Bain began their study trying to answer this question, "Are some of the problems of poor readers related to inadequately developed story schemata and/or the inability to use schemata?" (p. 151). In their attempt to answer the question, they divided third graders into groups of good and poor readers. The poor readers were then separated into 5 subgroups based on their skills in comprehension topics. The instructional procedure consisted of reading stories to the children and after a brief time having the children retell the stories. Results revealed that good readers recalled significantly more about the whole story than poor readers. However, there were differences between the recallings of the poor readers which led Wilkinson and Bain to conclude that not all poor readers have difficulty retelling stories (p. 155). However, the researchers were unable to answer their question of the relationship of story schemata to the poor reader. Furthermore, they stated that the present research has not shown us that there is a current need for the implicit, formalized teaching of story grammar.

Gambrell, Linda B., Warren R. Pfeiffer, and Rober M. Wilson. "The Effects of Retelling Upon Reading Comprehension and Recall of Text Information." Journal of Educational Reasearch 78 (4) (March-April 1985): 216-220.

This study was designed to determine the effects of retelling stories upon reading comprehension and later recall of the text. The researchers stated that "comprehension requires organization and that engaging in the retelling of text-acquired information focuses the reader's attention on holistic comprehension" (p. 216). Such seemed the case in the researchers study of fourth graders on the use of retelling. Two groups of pupils were used in the study. Both groups silently read passages and later filled out an outline calling them to list an important idea in the passage and details to support it. Later one group retold everything they remembered about the passage while the other group illustrated what they remembered. These steps continued on all four training days. The test session began with all subjects silently reading a passage and retelling what they could remember. After two days all subjects then gave a delayed retelling and answered literal and inferential questions about the passage. Results revealed that the group who had had practice in retelling did better on immediate recall, delayed recall, and answering literal and inferential questions than the group who had illustrated the passages. Also, the retelling group forgot little of the passage with the two day gap, while the illustrating group forgot significantly more. The researchers concluded that the practice of retelling is an effective strategy for enhancing comprehension and recall of a passage and the skill can be transferred to subsequent text.

Reutzel, Ray D. "Clozing in on Comprehension: The Cloze Story Map." The Reading Teacher 39 (6) (February 1986): 524-528.

The purpose of the study was to determine the effectiveness of integrating the cloze procedure with story mapping as a tool for improving pupils' comprehension of narrative and expository passages. The control group of fifth graders used the Directed Reading-Thinking Activity as an introduction to the two passages. After reading they discussed the passages and studied for a test by reviewing notes and using other means of studying. The experimental group used the Cloze Story Mapping (CSM) approach, which resembles a story map, but has every fifth shape deleted. The CSM group used the cloze story mapping procedure for pre-reading, during reading, and after reading activities. When tested on both passages, the group using the CSM approach scored higher on recall of the passages. The CSM procedure is recommended as a teaching strategy for comprehension. It can be used before reading to prepare the pupils for what they will be reading and to give them a purpose for reading. Used during reading, it can help them zero in on comprehension. Afterwards, it can help pupils to review. It can also help to evaluate the pupils' comprehension. Reutzel concluded, "Combining story mapping with the cloze technique presents a novel application of cloze to comprehension instruction, while expanding the potential uses of story mapping" (p. 527).

Hoffman, James V. "Rethinking the Role of Oral Reading in Basal Instruction." The Elementary School Journal 87 (1987): 367-373.

Hoffman's study was done in one second grade classroom for two years to determine if new teaching strategies could enhance the comprehension skills of low readers. There were two major parts to the technique. The first, direct instruction, contained three sub-catagories. The first subcatagory involved having the teacher read a passage to the pupils. A discussion of the story and the story elements (characters, setting, etc.) was then conducted and a story map was drawn based upon the discussion. The second subcatagory dealt with practice in fluency and expression. The teacher read a segment of a story to the children and they in turn read it back. The teacher expanded the segments as the children got better with their fluency. In the third subcatagory, the children "performed" a passage that they had practiced for their classmates and teacher. The second major part of this teaching strategy was termed "indirect instruction." This was the time when the pupils practiced reading material that was introduced during direct instruction. The teacher monitored pupils to see if they could achieve a minimum level of accuracy, fluency, and expression. The use of these practices yielded positive results for Hoffman. Comprehension and fluency played a bigger role than word-by-word decoding. This was apparent as pupils themselves decided to re-read passages where they had made no decoding errors, but rather wanted to change their expression. This internalization of the process showed the potential for teaching comprehension and for the potential of reading to be "transformed into a 'comprehension event' rather than an exercise in decoding words that happen to be strung together on a page" (p. 372).

Sheldon, Susan A. "Comparison of Two Teaching Methods for Reading Comprehension." Journal of Research in Reading 7 (1) (1984): 41-52.

In this study, Sheldon compared two teaching methods for their effects on reading comprehension using eight- to nine-year olds as subjects. The control group was instructed by using multiple choice questions about passages. The experimental group was instructed on restructuring passages through the use of diagrams. As Sheldon stated, "The experimental technique was based on the assumption that diagrams could serve the same purpose as questions in consolidating and focusing attention on the ideas in the reading material" (p. 42). After eight weeks of instruction, the students were posttested using two comprehension tests. Results of both posttests showed that the experimental group scored significantly better than the control group - even on the multiple choice questions. The time it took to complete the test was also measured, and the experimental group was found to have taken more time to complete the compiled test. When pretests were compared to posttests, the poor readers in the experimental group were found to have made the greatest increase. Also, the poor readers in both groups improved more than the better readers.

Weaver, Phyllis A. "Improving Reading Comprehension: Effects of Sentence Organization Instruction." Reading Research Quarterly 15 (1) (1979): 129-146.

Sentence organization and it's affect on reading comprehension was the topic of this study conducted on 31 third graders. The pupils were placed in the experimental group or the control group and each of these groups contained average and above average readers. Pre and posttesting consisted of administering several types of comprehension tests and a "sentence anagram" task in which students were to put scrambled words in the correct order (p. 131). The experimental group was given instruction in doing sentence anagrams. They were shown how to put words together to form units and how to put these units together to form a sentence. They were also encouraged to improve the time it took them to complete the task. Results of the testing revealed that for the sentence anagram test and the reading comprehension tests the average readers in the experimental group did significantly better than the average readers in the control group. Furthermore, the above average readers in the experimental group did significantly better than the above average readers in the control group. However, the above average readers in the control group did score better than the experimental group of average readers in most cases. Weaver justified this by saying, "Better readers typically perform more efficiently" (p. 141). She also stated that the average readers in the experimental group made about the same percentage of improvement as the above average readers in their group and both groups did significantly better than the two groups who did not receive training. Weaver concluded that "sentence organization skills are related to comprehension," and "...may enhance the quality of reading comprehension" (p. 143).

Straw, Stanley B., and Robert Schreiner. "The Effect of Sentence Manipulation on Subsequent Measures of Reading and Listening Comprehension." Reading Research Quarterly 17 (3) (1982): 339-353.

High, average, and low ability readers from six fourth grade classrooms were subjects in this study designed to explore the effects of synthetic writing instruction on reading and listening comprehension. Three treatments were established. One treatment used a synthetic approach to writing ("sentence-combining") where pupils were instructed on how to combine simple sentences into more complex and elaborate sentences (p. 342). Another treatment was an analytic method termed "sentence-reduction" and involved breaking complex sentences into simple sentences and phrases (p. 345). The last treatment, "textbook", was also an analytic method and was presented through the use of a textbook which emphasized a traditional approach of studying grammatical parts (p. 343). This treatment was considered to be the control. Subjects were pretested on their listening and reading comprehension and on writing. The same tests with the addition of a cloze test for reading comprehension were administered after 25 days of instruction. Results of the posttests revealed that the synthetic treatment group did significantly better than the control group on all tests except for the reading comprehension test. The synthetic treatment also did significantly better than the sentence-reduction group on the listening comprehension test and on two parts of the writing text. The sentence-reduction group did, however, show significant results on the cloze comprehension test. The results led the researchers to conclude that they were uncertain about the effects of sentence-reduction instruction, but they suggested that sentence-combining should be used as a part of an integrated language arts program including listening, reading, and writing.

Baumann, James F. "Children's Ability to Comprehend Main Ideas in Content Textbooks." Reading World 22 (4) (May 1983): 322-331.

Baumann used third and sixth graders to test their skills of comprehending the "gist" (an overall theme) and the main ideas of a passage (p. 324). The testing occurred in two sessions. On the first session, the subjects silently read a text and then wrote a gist statement that told about the whole text. They also wrote whatever they could remember about the text. On the second day, they read a different text and were told to choose one statement from a given list that represented the gist of the text. They took a 12-item multiple choice test on the main ideas and details of the story. Results revealed that the subjects were not proficient in writing gist statements, but were much better at choosing them from a given list. Concerning main ideas and details, results were not consistent, showing that pupils' skills in these areas were not consistent. The results led Baumann to make three over-all suggestions to educators. The first called for educators to remember students' strengths and limitations of gist statements when assigning work. The second suggestion was that direct instruction in gist statements, main ideas, and details should be conducted using actual textbooks so that more transfer will occur. Finally, educators were urged to increase pupils' background knowledge of expository prose by exposing them to it at an earlier age.

Seretny, Michael Lee and Raymond S. Dean. "Interspersed Postpassage Questions and Reading Comprehension Achievement." Journal of Educational Psychology 78 (3) (1986): 228-229.

Seretny and Dean used second graders as subjects in a study of the effects of interspersed postpassage questions on pupil's comprehension. Fifty-four pupils, divided into top, middle, and low reading groups were instructed by two teachers. The experimental group was instructed by answering and discussing interspersed questions as they read orally from their basal readers. They were also taught to make judgements about the story. The control group read the same stories, but did not receive the interspersed question treatment. After eight weeks, all subjects were tested on reading comprehension. Results showed that the experimental top reading group did not make significant gains in reading comprehension. However, the middle and low experimental groups did make significant gains compared to the middle and low control groups. The results can be interpreted to mean that using the interspersed questioning strategy as opposed to not using questioning will benefit most average and below average readers.

Fagan, Edward R., Donna M. Hassler, and Michael Szabo. "Evaluation of Questioning Strategies in Language Arts Instruction." Research in the Teaching of English 15 (3) (October 1981): 267-273.

Wait-time (waiting longer for pupils to respond to questions and waiting longer before responding to pupils' answers) and higher level questioning and their effects on subjects' answers were studied in the content of language arts (p. 267). Four treatment groups were established for the study and teachers were assigned one of the following groups: (1) wait-time combined with higher level questioning training, (2) higher level questioning training only, (3) wait-time training only, and (4) control group (no training) (p. 268). Pupil and teacher questions and responses were coded during discussions that occurred after the presentation of children's literature stories to determine their length, complexity, and frequency of occurrence. Results showed that teachers in wait-time groups asked fewer questions, but got longer responses from pupils, teachers trained in the higher level questioning technique asked more higher level questions and got more higher level answers than any of the other treatment groups, and teachers trained in wait-time and questioning got more alternate pupil explanations. The conclusions drawn by the researchers stated that none of the techniques was the only solution. However, the higher level questioning technique used alone and in combination with the wait-time technique, seemed to be more effective than the wait-time technique used alone (p. 272).

Gambrell, Linda B. "The Occurrence of Think-Time During Reading Comprehension Instruction." Journal of Educational Research 77 (2) (1983): 77-80.

The focus of this study was on what Gambrell referred to as "think-time", which is the time a student has to answer a question asked by the teacher (p. 77). Gambrell had third grade teachers send her audio tapes of their best reading comprehension lessons for their high, average, and low readers. The researchers then listened to the tapes to determine how much think-time pupils were given to answer questions and the types of questions that were asked of the pupils. Question types were described as either "text-based", when they could be found in the text, or "scriptal", when a pupil had to use prior knowledge or experience to answer the question (p. 78). Results of the procedure showed that teachers asked pupils questions approximately every 43 seconds, and of the analyzed questions 63 percent were classified as text-based and 37 percent were classified as scriptal questions (p. 78-79). Furthermore, pupils in the average and below average reading groups were asked more text-based questions than scriptal questions which are thought to deal with higher level thinking skills. When think-time was analyzed, it was found that "once a question was posed by the teacher, less than one second of think-time occurred" (p. 79). Also, pupils were given more think-time for text-based questions than for scriptal questions, which caused Gambrell to conclude, "Asking scriptal questions may be an ineffective reading comprehension strategy unless pupils are given adequate think-time to reflect, process, and interrelate necessary text-based and schema-based information prior to responding to teacher-posed questions" (p. 80).

Gambrell, Linda B., and Ruby J. Bales. "Mental Imagery and the Comprehension-Monitoring Performance of Fourth- and Fifth-Grade Poor Readers." Reading Research Quarterly 21 (4) (Fall 1986): 454-464.

In an effort to evaluate the effects of mental imagery upon the way poor readers monitor their comprehension, Gambrell and Bales conducted a study using sixty-two poor readers in fourth grade and sixty-two poor readers in fifth grade as subjects. The subjects were randomly placed in the experimental group which received instruction in using imagery or in the control group which received general instructions. All subjects had a training session in which they were told to carefully read and try to remember high-imagery sentences and paragraphs. The experimental group was told, "Make pictures in your mind to help you understand and remember what you read" (p. 458). The control group was told "Do whatever you can to understand and remember what you read" (p. 458). For posttesting pupils read two passages which contained either implicit or explicit contradictions. They then were asked questions about the passage. To see if they were able to identify the contradictions, the experimenters used a list of probe questions that started with general questions, then moved to questions that gave indirect prompts, and concluded with questions that gave direct prompts. After an analysis of pupils' answers, it was found that the group using the mental imagery strategy was able to detect significantly more explicit and implicit inconsistencies than the control group, leading the experiments to the conclusion that "the use of imagery enhances the reader's ability to evaluate his or her understanding of the text" (p. 461).

Miller, Gloria E. "The Influence of Self-Instruction on the Comprehension Monitoring Performance of Average and Above Average Readers." Journal of Reading Behavior 19 (3) (1987): 303-319.

Fifth grade pupils took part in this study of using self-instruction to increase reading comprehension. The subjects were placed in the self-instructional group or the control didactic group. Within these two groups the subjects were either divided into (1) above average or (2) average or slightly below average readers. The self-instructional group was given instruction in reading passages in order to find sentences that were contradictory or confusing. The experimenter modeled a five-step strategy which the subjects practiced orally and later internalized. The strategy gave specific instructions and was written in first person. The control didactic group was taught using similar conditions except that they were not given a specific problem to look for and their instructions were given in the second person. All subjects were pretested, tested immediately after training, and tested after one week. The pretests showed no significant differences between the two groups' abilities on the skill before training. However, the after-training test scores and the delayed text scores of the above average self-instructed subjects were significantly better than those of the control subjects. The average readers of the self-instructed group also scored slightly better than the average readers in the control group, but the difference was not statistically significant, leading Miller to conclude that the self-instruction strategy can be used to increase comprehension monitoring in above average readers. Miller also suggested the need for further research in this area.

Pelow, Randall A., and Helen McVey Colvin. "PQ4R as it Effects Comprehension of Social Studies Reading Material." The Social Studies Journal 12 (Spring 1983): 14-22.

A reading-study skills technique entitled PQ4R was taught to a group of fifteen sixth graders to determine whether the technique would help increase their comprehension of a social studies unit. Classroom teachers taught the technique during the alloted social studies time which for this study was 45 minutes each day for four weeks. A control group of fifteen sixth graders was also formed. Both groups used the same social studies materials. The teacher of the control group assigned readings, workbook assignments, and reports; asked questions; and conducted a review session. The teacher of the experimental group did the same with the additional of one thing - the PQ4R technique. It was explained that PQ4R stands for preview, question, read, reflect, recite, and review (p. 18). Subjects were shown how to apply these while they read from their textbooks and they learned to use the technique independently. To test the effects of PQ4R, a forty item objective test was given to both groups. Results revealed that the group using the PQ4R treatment scored significantly higher than the control group. Pelow and McVey concluded that the technique can be used to increase comprehension of social studies materials. They also concluded that "PQ4R procedures offer teachers yet another effective means of diversifying their instructional programs" (p. 21).

Doctorow, Marleen, M. C. Wittrock, and Carolyn Marks. "Generative Processes in Reading Comprehension." Journal of Educational Psychology 70 (2) (1978): 109-118.

This study was based on the generative model of learning which states that "during encoding, learners use their memories of events and experiences to construct meanings for the text" (p. 109). To test the model, two experiments, one using high ability readers and one using low ability readers, were done using sixth graders as subjects. Each experiment consisted of several experimental treatments and control treatments. In two of the experimental treatments, subjects were given passages to read that contained one or two-word paragraph headings that were related to the content of the paragraphs. In the other three experimental treatments, subjects were instructed to read the story and then write about it. For this generative process, they were either given one, two, or no-word headings. The control groups did not use the headings and they did not generate their own sentences. After the experimental procedures were done, subjects were tested using a comprehension test and a cloze recall test. Overall results showed that, "the combination of paragraph headings and generative-processing instructions produced the greatest comprehension and recall, followed in turn by generative instructions alone, paragraph headings alone, and then by the control treatments" (p. 117).

SUMMARY

Kurth (1985), after reviewing research on the topic of reading comprehension, implemented a study to help teachers increase the time they devoted to comprehension during their reading sessions. Durkin was also concerned about the lack of direct teaching of comprehension. After observing teachers, Durkin found that less than 1 percent of reading and social studies time was devoted to teaching comprehension (Durkin, 1978-79).

The studies of Quirk, et al. (1976) and Quirk, et al. (1975) were done to reveal the behavior of pupils and teachers during reading instruction. Pupil and teacher behaviors were observed and recorded in terms of the percentage of time they engaged in certain activities. Although comprehension instruction did not occupy even close to the majority of reading time, Quirk, et al. (1976) concluded that the time spent on the combination of reading - related activities (comprehension, pronunciation and word recognition, language structure, silent reading, spelling, and listening instruction) was promising.

Research was also done to determine if there was a shift in the instruction of reading comprehension from grades one through three to grades four and higher. Results showed that although word recognition skills were not taught as much after third grade, text level comprehension did not increase. It was also found that second through fifth grade

teachers all failed to spend much time teaching comprehension even though they admitted that this was an area in which their pupils were weak (Mason and Osborn, 1982).

The overuse of worksheets and assessment was a common finding. Mason (1983) found that worksheets had taken over the teaching of comprehension and she suggested that they either be modified or their use should be regulated. Durkin (1978-79) found similar results and therefore reviewed five basal series to determine whether they could provide insights on these practices. In her study of basals, she found that the basal manuals gave far more suggestions for assessment and practice than they did for actual teaching (Durkin, 1981). The advice that direct instruction take over the use of worksheets was again suggested by Taylor, et al. (1985).

Durkin's concern about comprehension instruction further prompted her to find a cause for the apparent lack of direct instruction, and therefore she turned her attention to how teachers use basal manuals. Results of this study revealed that teachers pick and choose how they will follow their manuals. Rarely did teachers use manuals for prereading activities of introducing new vocabulary, developing a background for reading selections, or asking prereading questions. Manuals were also not referred to, in her presence, when it came to making assignments. The dependence on manuals instead came when teachers were

assessing comprehension through questioning (Durkin, 1984). This information then prompted Durkin to review reading methodology textbooks. Her study revealed that suggestions for detailed teaching were much less common than suggestions for assessment. Durkin also discovered that the terms "instruction" and "assessment" need to be distinguished, since many of the activities that she thought were clearly assessment were labeled as "instruction" in the textbooks (Durkin, 1985).

The concern about reading comprehension instruction has sparked a slew of research on strategies that can be implemented to improve comprehension. One area of comprehension, schemata, has been the subject of several different types of studies. Hansen and Pearson (1983) and Brimble (1986) addressed the issues of background knowledge and schema in their studies. Subjects in both studies were called to incorporate their prior knowledge with the text to better their comprehension. This reasoning was also the basis of a study of the effects of writing as a prereading activity. It was concluded that "comprehension is dependent on the schema available to the reader, and writing is a schema-building process" (Marino, Gould, & Hass, 1985, p. 200).

Prediction strategies involve schema since they draw upon the reader's prior knowledge. Ferguson and Kennedy (1985) researched the effects of P-R-E-V, a prediction strategy, to determine it's effects on comprehension of

social studies reading selections. Results indicated that the implementation of this strategy improved the overall scores of the subjects who used it.

The effects of retelling upon reading comprehension were studies by Wilkinson and Bain (1984) and Gambrell, Pfeiffer, and Wilson (1985). Wilkinson and Bain found that good readers were able to recall significantly more about stories than poor readers. However, they were unable to determine the relationship of story schemata to the poor reader. When Gambrell, Pfeiffer, and Wilson compared the effects of retelling to illustrating, they found that the group who had had practice in retelling remembered more about the stories than the group who had had practice in illustrating. They concluded that retelling is an effective strategy for enhancing comprehension.

Another area of comprehension, linguistic/reasoning skills, addresses text-related issues and was also the topic of several studies of reading comprehension. One such study was conducted to compare the effects of the combination of the cloze procedure and story mapping on comprehension. Subjects who were instructed in this strategy were able to recall more of passages than subjects that used the Directed Reading - Thinking Activity (Reutzel, 1986).

A strategy including story maps, story grammar, and fluency practice was promoted by Hoffman (1987). Subjects practiced reading stories until they achieved the required level of accuracy, fluency, and expression. The

emphasis was on comprehension and fluency rather than word-by-word decoding and the subjects were able to internalize what they learned.

Organizational strategies were researched by Sheldon (1984), Weaver (1979), and Straw and Schreiner (1982). In all studies, sentence structure was manipulated to determine it's affect on comprehension. Although results were promising in all three studies, there were some variations on their effects of poor and good readers. Sheldon found that poor readers benefited more than good readers on restructuring paragraphs and Weaver found that average and above average readers made about the same percentage of improvement. Straw and Schreiner found that although the group that was instructed in sentence-combining did better in most areas than the other two groups, the sentence-reduction group did show significant results on a cloze test.

Specific subskill instruction on themes, main idea, and details was the topic of Baumann's study (1983). He found that third and sixth graders were inconsistent in their abilities in these areas. Baumann recommended that these subskills be directly taught using content textbooks.

In the area of attentional/processing factors, questioning strategies were researched by Seretny and Dean (1986), Fagan, Hassler, and Szabo (1981), and Gambrell (1983). The emphasis of the study by Seretny and Dean was on the use of interspersed postpassage questions, which they

concluded benefited most average and below average readers more than the use of similar techniques without the use of questions. However, significant gains were not found with the top reading group. Think-time (wait-time) and the use of higher level questioning were researched by Gambrell and also by Fagan, Hassler, and Szabo. Both suggested the need to incorporate the two skills. However, Fagan, Hassler, and Szabo found that higher level questioning can be beneficial when used alone and Gambrell concluded that if students are not given adequate time to respond, the higher level questioning strategy may be ineffective.

Self-monitoring is another processing factor in reading comprehension. Gambrell and Bales (1986) and Miller (1987) used two different approaches to determine subjects' abilities to find inconsistencies in text. Gambrell and Bales, using poor readers in fourth and fifth grades as subjects, concluded that, "The use of imagery enhances the reader's ability to evaluate his or her understanding of the text" (Gambrell and Bales, 1986, p. 461). Miller used a different technique with fifth graders who were above average, average, or slightly below average readers. The experimental group was taught to use a self-instructional, step-by-step procedure to find inconsistencies. Results led Miller to conclude that the strategy can be used to increase comprehension monitoring in above average readers.

Finally Pelow and Colvin (1983) and Doctorow, Wittrock, and Marks (1978) used self-monitoring strategies as the basis for their research. Pelow and Colvin found PQ4R to be

an effective strategy to enhance reading comprehension. Doctorow, Wittrock, and Marks found that the combination of paragraph headings and generative-processing instructions were beneficial in promoting comprehension and recall.

CONCLUSION

There is a current concern about the time spent teaching reading comprehension. Much of this concern was sparked by Durkin's study in 1978 and 1979 which revealed that less than 1 percent of the time during reading was devoted to teaching comprehension. Since then relatively little research has been conducted to validate Durkin's findings. This somewhat dated research (Durkin, 1978-179) has been taken for fact and has become the foundation upon which further studies have been generated (Kurth, 1985; Mason and Osborn, 1985; Mason, 1983; Taylor, et al, 1985; Gambrell, Pfeiffer, & Wilson, 1985; Gambrell, 1983).

Although other research has been done on teacher behavior during reading instruction, no conclusions were drawn as to whether the time spent on teaching reading comprehension was sufficient. The lack of time spent teaching reading comprehension was implied, but not outwardly stated in the research articles (Kurth, 1985; Quirk, 1976; Quirk, 1975). More research needs to be conducted to determine if indeed more time should be

dedicated to teaching reading comprehension and/or to determine if better techniques need to be implemented to more effectively utilize instructional time.

It is difficult to determine the cause of this apparent lack of direct teaching of comprehension, but Durkin (1984 and 1985) offers some possible insight. In a study of reading methodology textbooks used with undergraduate students, Durkin (1985) found few if any examples of explicit suggestions for teaching comprehension. How can educators instruct their pupils in comprehension when they as education students are not given the necessary techniques to accomplish this task? Furthermore, if teachers are not taught the necessary methods in college, perhaps basal manuals could serve as a source to obtain concrete methods for teaching reading comprehension. However, Durkin found the basal manuals not to be a good source as they offered far more suggestions for practice and assessment than they did for direct teaching (Durkin, 1984).

Although not stressed as part of today's education curriculum, research has offered several possible techniques to enhance reading comprehension in the classroom. Strategies in schemata, linguistic/reasoning skills, and attentional/processing areas have met with some success. Educators must be cautious, however, when choosing strategies, since discrepencies exist as to which pupils benefit most from certain strategies. Techniques need to be modified to adapt to pupils' reading levels and no one

strategy should be thought of as the cure for the problem. Educators need to be aware of alternative strategies and methodologies and work diligently to incorporate the ones that best fit their pupils' needs.

RECOMMENDATIONS

It is recommended that:

1. Educators increase the time spent on the direct teaching of reading comprehension skills.
2. Worksheets be used only as a source of practice on comprehension skills and tests be used only as a source of assessing pupils' strengths and weaknesses.
3. Educators play an active role in adopting basal reader series.
4. Educators enlighten themselves on current research from which they can gain new, effective teaching strategies.
5. Reading comprehension strategies be combined to provide a well-balanced reading curriculum.
6. Reading comprehension strategies be adapted to meet the individual needs of pupils.
7. Reading comprehension methodologies and practices be taught to a greater degree in higher education programs in order to prepare our future educators.
8. Reading comprehension inservice training be provided for our current educators so that reading comprehension practices can be improved.

9. Current research on the amount of time spent on teaching reading comprehension instruction be conducted.
10. Research continue to explore new avenues and review previous findings in the study of reading comprehension.

BIBLIOGRAPHY

Baumann, James F. "Children's Ability to Comprehend Main Ideas in Content Textbooks." Reading World 22 (4) (May 1983): 322-331. (2, 22, 31)

Brimble, Ron. "An Interaction, Question - Response Strategy: Focus on the Sentence in Content Reading." Australian Journal of Reading 9 (2) (June 1986): 84-90. (16, 29)

Doctorow, Marleen, M. C. Wittrock, and Carolyn Marks. "Generative Processes in Reading Comprehension." Journal of Educational Psychology 70 (2) (1978): 109-118. (26, 32, 33)

Durkin, Dolores. "Is There a Match Between What Elementary Teachers Do and What Basal Reader Manuals Recommend?" The Reading Teacher 37 (1984): 734-744. (2, 14, 28, 29, 34)

Durkin, Dolores. "Reading Comprehension Instruction in Five Basal Reader Series." Reading Research Quarterly 16 (4) (1981): 515-544. (13, 28)

Durkin, Dolores. "Reading Methodology Textbooks: Are They Helping Teachers Teach Comprehension?" Reading Education Report No. 59. Bolt, Beranek, and Newman, Inc., Cambridge, Mass.; Center for the Study of Reading. Illinois University, Urbana. (1985). ED 262 391. (15, 29, 34)

Durkin, Dolores. "What Classroom Observations Reveal About Reading Comprehension Instruction." Reading Research Quarterly 14 (4) (1978-1979): 481-533. (1, 2, 4, 10, 27, 28, 33)

Fagan, Edward R., Donna M. Hassler, and Michael Szabo. "Evaluation of Questioning Strategies in Language Arts Instruction." Research in the Teaching of English 15 (3) (October 1981): 267-273. (23, 31, 32)

Ferguson, Dr. Anne M., and Melanie Kennedy. "P-R-E-V Teaching Predictions and Concepts Simultaneously." Reading Horizons 25 (3) (Spring 1985): 194-199. (2, 7, 17, 29, 30)

Gambrell, Linda B. "The Occurrence of Think-Time During Reading Comprehension Instruction." Journal of Educational Research 77 (2) (1983): 77-80. (24, 31, 32, 33)

Gambrell, Linda B., and Ruby J. Bales. "Mental Imagery and the Comprehension-Monitoring Performance of Fourth- and Fifth Grade Poor Readers." Reading Research Quarterly 21 (4) (Fall 1986): 454-464. (24, 32)

Gambrell, Linda B., Warren R. Pfeiffer, and Robert M. Wilson. "The Effects of Retelling Upon Reading Comprehension and Recall of Text Information." Journal of Educational Research 78 (4) (March-April 1985): 216-220. (14, 18, 30, 33)

Good, Carter U. Dictionary of Education. New York: McGraw-Hill Book Company, 1973. (6, 7, 8, 9)

Hansen, Jane and P. David Pearson. "An Instructional Study: Improving the Inferential Comprehension of Good and Poor Fourth-Grade Readers." Journal of Educational Psychology 75 (6) (1983): 821-829. (2, 16, 29)

Hoffman, James V. "Rethinking the Role of Oral Reading in Basal Instruction." The Elementary School Journal 87 (1987): 367-373. (19, 30, 31)

Jenkins, Joseph R. and Darlene Pany. "Instructional Variables in Reading Comprehension". In Guthrie, John T. (Ed.), Comprehension and Teaching: Research Reviews. Newark, Del.: International Reading Association, 1981. (2, 3, 4)

Kurth, Ruth Justine. "Training Peer Teachers to Improve Comprehension Instruction." Paper presented at the Annual Meeting of the American Educational Research Association. March 31-April 4, 1984. Chicago, IL. ED 256 733. (2, 4, 10, 27, 33)

Marino, Jacqueline L., Sandra M. Gould, and Lester W. Haas. "The Effects of Writing as a Prereading Activity on Delayed Recall of Narrative Text." The Elementary School Journal 86 (2) (November 1985): 199-205. (17, 29)

Mason, Jana M. "An Examination of Reading Instruction in Third and Fourth Grades." The Reading Teacher 36 (9) (May 1983): 906-913. (2, 12, 28, 33)

Mason, Jana, and Jean Osborn. "When Do Children Begin 'Reading to Learn'? A Survey of Classroom Reading Instruction Practices in Grades Two Through Five." Technical Report No. 261. Center for the Study of Reading. Illinois University, Urbana-Champaign. (September 1982). ED 220 805. (2, 4, 12, 27, 28, 33)

Miller, Gloria E. "The Influence of Self-Instruction on the Comprehension Monitoring Performance of Average and Above Average Readers." Journal of Reading Behavior 19 (3) (1987): 303-319. (25, 32)

Pelow, Randall A., and Helen McVey Colvin. "PQ4R as it Effects Comprehension of Social Studies Reading Material." The Social Studies Journal 12 (Spring 1983): 14-22. (25, 32, 33)

Quirk, Thomas J., et al. "Attending Behavior During Reading Instruction." The Reading Teacher 29 (April 1976): 640-646. (11, 27, 33)

Quirk, Thomas J., et al. "The Classroom Behavior of Teachers During Compensatory Reading Instruction." The Journal of Educational Research 68 (1975): 185-192. (11, 27, 33)

Reutzel, D. Ray. "Clozing in on Comprehension: The Cloze Story Map." The Reading Teacher 39 (6) (February 1986): 524-528. (19, 30)

Reutzel, D. Ray. "Story Maps Improve Comprehension". The Reading Teacher 38 (4) (1985): 400-404. (8)

Seretny, Michael Lee and Raymond S. Dean. "Interspersed Postpassage Questions and Reading Comprehension Achievement." Journal of Educational Psychology 78 (3) (1986): 228-229. (23, 31, 32)

Sheldon, Susan A. "Comparison of Two Teaching Methods for Reading Comprehension." Journal of Research in Reading 7 (1) (1984): 41-52. (20, 31)

Straw, Stanley B., and Robert Schreiner. "The Effect of Sentence Manipulation on Subsequent Measures of Reading and Listening Comprehension." Reading Research Quarterly 17 (3) (1982): 339-353. (21, 31)

Taylor, Barbara, et al. "A Comparison of Students' Ability to Read for Main Ideas in Social Studies Textbooks and Complete Main Idea Worksheets." Reading World 24 (3) (March 1985): 10-15. (2, 4, 13, 28, 33)

Weaver, Phyllis A. "Improving Reading Comprehension: Effects of Sentence Organization Instruction." Reading Research Quarterly 15 (1) (1979): 129-146. (20, 31)

Wilkinson, Ian, and John Bain. "Story Comprehension and Recall in Poor Readers: Everyone a Schemer?" Australian Journal of Reading 7 (3) (August 1984): 147-157. (8, 9, 18, 30)